Reservoir Road would be extremely detrimental due to the limited number of parking spaces available to the residents.

B. Providing three lanes as above, but striping the right lane to be an exclusive right-turn lane would not require the elimination of residential parking on Reservoir Road east of Foxhall Road. This option is shown in Figure 22.

With option 2A, the existing problem of eastbound Reservoir Road traffic merging into one lane would merely be shifted further away from the intersection; it would not be eliminated. Only by providing one through lane would the sudden merge problem be entirely eliminated. The Consultant used the SYNCHRO traffic simulation model to evaluate Option 2B. The modeling of this option indicated that the intersection would operate at level of service E with the left-through-right lane configuration during the AM and PM peak hours.

3. Changing the signal timing and phasing will have the greatest impact on the intersection. Currently, the intersection operates on a 120-second cycle during the AM peak hour (42 second northbound phase, 34 second southbound phase) and a 90-second cycle during the PM peak hour (30 second northbound phase, 24 second southbound phase).

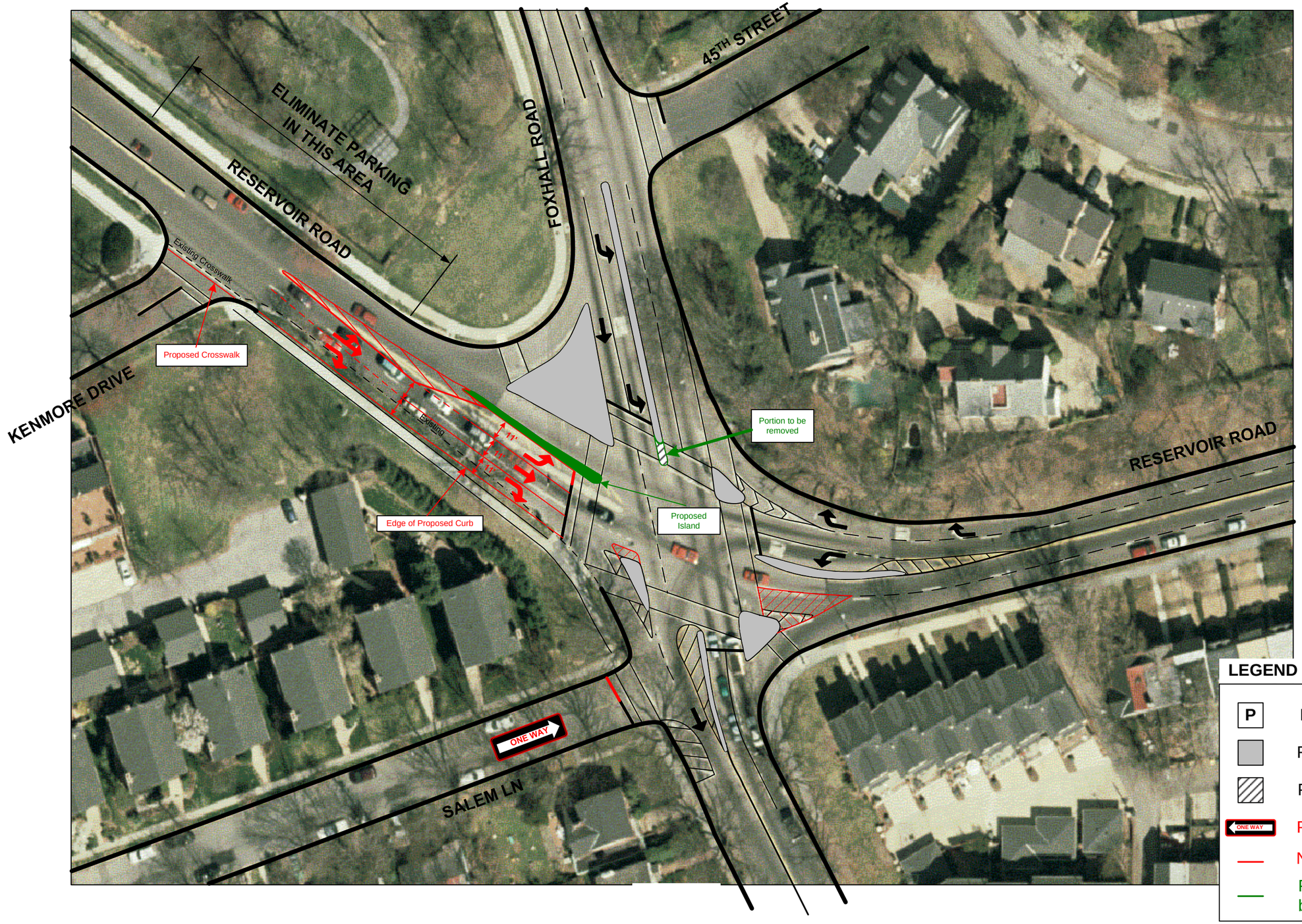
   The proposed optimized timings are as follows: AM peak – 80 second cycle with a 48 second north-south phase, including a 20 second advance southbound phase. PM peak – 120 second cycle with 61 second north-south phase, including a 20 second advance southbound phase.

   Table 14 compares the future, one-year delay and level of service at the intersection for the condition without phasing and timing changes to the condition with optimized phasing and timing, as well as the inclusion of Option 2B. One-year conditions include background growth and site traffic. Optimized conditions include the additional traffic as well as improvements discussed above. As Table 14 indicates, delays can be reduced significantly with the implementation of improvements 1,2B and 3.

Table 14:
Comparison of Levels of Service for Option 2B – Optimized and Non-optimized Conditions

Peak hour	One-year Conditions		Optimized Conditions		Change in Delay
	Delay (s)	LOS	Delay (s)	LOS	
AM	130.0	F	61.0	E	-53.1%
PM	226.1	F	57.0	E	-74.8%

4. Salem Lane should be converted to one-way eastbound operation to prohibit right turns from southbound Foxhall Road and increase safety. Vehicles making this turn often do not see other vehicles making the right turn from eastbound Reservoir Road to southbound Foxhall Road.



Scale: 1" = 55 '	N	**Palisades Traffic Impact Study**	**Proposed Improvements for Reservoir and Foxhall Road - Option B**
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5. A new sidewalk on Foxhall Road will allow residents of Hoban Road and 45th Street to safely walk to the intersection of Foxhall and Reservoir.
6. The proposed sign will improve safety.
7. Eliminating this parking along the German Embassy property will allow for easier left turns from Kenmore drive onto Reservoir Road.
8. Analysis of one-year conditions with development traffic on a one-lane roundabout at this location indicates that most approaches would operate at a volume/capacity ratio of more than 1.0. Simply put, this means that the projected volume is greater than the capacity of the roundabout. A two-lane roundabout would be too large for the geometric constraints of this intersection.

Recommendation:

- Implement improvements one through seven, listed above, with Option 2B, as shown in Figure 22. Replace pavement markings, make geometric improvements and construct sidewalk. The lane configuration for the eastbound approach should be the one described in Option 2B with one left turn lane, one through lane and one right turn lane. The increase in capacity that can be achieved at this intersection with two through lanes on eastbound Reservoir Road is not enough to offset the loss of residential parking required to implement the proposed Option 2A improvement. Based on information provided by the District of Columbia Office of Public Space, sufficient right-of-way is available for this improvement.

Issue:

- The striping for the left turn lane on Foxhall Road at Whitehaven Parkway is inadequate.

Preliminary Improvement(s):

1. Ensure that the signalization improvements at this intersection emphasize the exclusive left turn lane. Supplement existing signage and striping related to the left turn lane.

Evaluation:

1. As shown in Figure 23, the preliminary traffic signal design for this intersection addresses adequately signing and striping for the exclusive left turn lane.

Recommendation:

- Install signs and pavement markings.

Issue:

- Poor sight distance for vehicles exiting W Street

Preliminary Improvement(s):

1. Signalize intersection, if warrants are met.

Evaluation:

- This intersection meets the peak hour signalization warrant with existing traffic volumes during the AM peak hour[1]. With the addition of projected traffic from new developments in the area and one-year background growth, this intersection meets the peak hour signal warrant during the PM peak hour.

[1] Appendix H presents the signal warrant analysis worksheets for this intersection.